

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: April 16, 1997  
Date Received: April 10, 1997  
Project: Metro Self Monitor, PO #M74165  
Date Samples Extracted: April 14, 1997  
Date Extracts Analyzed: April 15, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010  
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M74165	0.43	0.31	0.31	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 77166 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	<0.05	<0.05	nm	0-20
Copper	mg/L (ppm)	0.08	0.08	0 a	0-20
Nickel	mg/L (ppm)	<0.05	<0.05	nm	0-20
Zinc	mg/L (ppm)	0.95	0.97	2	0-20

Laboratory Code: 77166 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	<0.05	101	99	80-120	2
Copper	mg/L (ppm)	5	0.08	100	99	80-120	1
Nickel	mg/L (ppm)	10	<0.05	101	99	80-120	2
Zinc	mg/L (ppm)	5	0.95	102	99	80-120	3

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	100	101	80-120	1
Copper	mg/L (ppm)	5	100	101	80-120	1
Nickel	mg/L (ppm)	10	101	102	80-120	1
Zinc	mg/L (ppm)	5	100	101	80-120	1

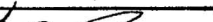
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

~~WIK~~ KJ AJ  
4.10.97  
1 dm

Send Report To: Alaskan Copperworks Contact GERALD Thompson  
Company 628 Haul Road Address ST  
City, State, Zip Sentle WA 98134  
Phone # (206) 382-8379 Date 3/10/97

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERARD Thompson	ACW	4/10/97	12:55
Received by: S. Obran	S. Obran	F+B, Inc.	4/10/97	12:55
Relinquished by:				
Received by:				

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

April 16, 1997

**INVOICE # 97ACU0416-1  
DUPLICATE COPY**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M74165: Results of testing requested by  
Gerry Thomsson, Project Manager for material submitted on April 10, 1997.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due .....

\$ 65.00

FEDERAL TAX ID # (b) (6)



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ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West  
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April 16, 1997

Gerry Thomspen, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thomspen:

Included are the results from the testing of material submitted on April 10, 1997 from your Metro Self Monitor, PO #M74165 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson  
Chemist

keh  
Enclosures  
ACU0416R.DOC